

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1.-2. (Canceled)

3. (Currently Amended) A method for producing a ~~modified~~ plant that does not contain a T-DNA, comprising (1) transforming a plant cell with (i) an ~~Agrobacterium~~ transformation vector that comprises a desired polynucleotide within a P-DNA, and (ii) an ~~Agrobacterium~~ transformation vector that comprises a selectable marker gene, within a T-DNA; (2) growing a plant obtaining from said transformed plant cell, which a transformed plant that comprises in its genome at least one copy of the desired polynucleotide, wherein the desired polynucleotide comprises sequences that are native to the genome of the plant cell said P-DNA and at least one copy of said T-DNA in its genome; (3) self-fertilizing or cross-fertilizing the transformed plant to produce progeny plants that ~~segregate for the T-DNA and P-DNA~~; and (4) identifying a progeny plant screening the progeny plants to identify a modified plant that does not comprise the selectable marker gene in its genome said T-DNA, but does comprise the desired polynucleotide in its genome said P-DNA, wherein the step of transforming the plant cell with the desired polynucleotide does not employ an Agrobacterium T-DNA, and wherein the desired polynucleotide and the selectable marker gene are each operably linked to genetic sequences that facilitate their expression.

4. (Canceled)

5. (Currently Amended) The method of claim 3, wherein the plant cell is a cell of a monocotyledon or dicotyledon plant ~~The modified tuber of claim 4, wherein the modified tuber is a mature tuber.~~

6.-12. (Canceled)

13. (Currently Amended) A progeny plant obtained from the method of claim 3 ~~modified tuber comprising as said modified tuber.~~

14.-43. (Canceled)

44. (New) The method of claim 3, wherein the desired polynucleotide and the selectable marker are in transfer-DNAs, which are in separate *Agrobacterium* vectors.

45. (New) The method of claim 44, wherein each vector is in a different *Agrobacterium* strain to the other vector.

46. (New) The method of claim 45, wherein the desired polynucleotide is located in a transfer-DNA, which is a P-DNA.

47. (New) The method of claim 44, wherein all of the vectors are in the same *Agrobacterium* strain.

48. (New) The method of claim 46, wherein the desired polynucleotide is operably linked to regulatory elements that are native to plants.

49. (New) The method of claim 44, wherein the vector that comprises the selectable marker gene, further comprises a second marker gene that can be selected against in segregating F1 progeny plants.

50. (New) The method of claim 49, wherein the second selectable marker gene encodes bacterial cytosine deaminase.

51. (New) The method of claim 3, wherein the selectable marker gene is expressed for 1 to 10 days.

52. (New) The method of claim 3, wherein the selectable marker gene is a herbicide resistance gene or an antibiotic resistance gene.

53. (New) The method of claim 3, wherein the desired polynucleotide comprises sequences that, when expressed in a plant, facilitates the down-regulation of expression of at least one of R1, polyphenol oxidase, and phosphorylase.

54. (New) The method of claim 44, wherein either (i) the vector that comprises the selectable marker gene further comprises a backbone integration marker gene, or (ii) the vector that comprises the desired polynucleotide further comprises a backbone integration marker gene, wherein the backbone integration marker gene is not located in the transfer-DNA.

55. (New) The method of claim 54, wherein the integration marker gene is a gene encoding isopentyltransferase.

56. (New) A method for identifying a plant polynucleotide that is capable of transferring a desired nucleic acid into another nucleic acid molecule, comprising (i) identifying a nucleotide sequence in a plant genome that is similar to but not identical to the nucleotide sequence of an *Agrobacterium* transfer-DNA; (ii) isolating the nucleotide sequence from the plant genome; and (iii) testing the nucleotide sequence for its ability to transfer a desired nucleic acid into another nucleic acid molecule.

57. (New) The method of claim 56, wherein step (iii) entails (a) placing a desired nucleic acid into the nucleotide sequence from the plant genome; (b) placing the resultant polynucleotide into an *Agrobacterium* vector; (c) subjecting a plant cell to *Agrobacterium*-mediated transformation with the vector; and (d) determining whether the desired nucleic acid is transferred from the vector into the plant cell genome.